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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,012	01/18/2002	Douglas Morgan Freimuth	YOR920010561US2	2130

7590

08/05/2005

IBM CORPORATION
INTELLECTUAL PROPERTY LAW DEPT.
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EXAMINER

AVELLINO, JOSEPH E

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 08/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/053,012

Applicant(s)

FREIMUTH ET AL.

Examiner

Joseph E. Avellino

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 15-17 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 18-20, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

12

DETAILED ACTION

1. Claims 1-23 remain pending in this examination. Claims 15-17, and 21 remain withdrawn as being drawn to a nonelected invention. Applicant is advised to update the claim notations for each set of claims. Claim 23 should read "previously presented" and not "new".

Claim Rejections - 35 USC § 101

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claim 14 is not tangibly embodied. Although Applicant is claiming an apparatus, each feature of the apparatus is merely software code as defined in the specification (page 13). Applicant is required to amend this claim such that the software modules are embodied on a computer readable medium. See MPEP 2106.

4. Claim 22 is not tangibly embodied. Although Applicant has amended such that at least one of said means is a tangible means, it does not mean that these tangible means is not embodied on a computer readable medium (i.e. a tangible means could be a piece of paper). See MPEP 2106. Correction or cancellation is required

5. Claims 20 and 23 are not tangibly embodied. A computer program product is merely software code, which is not tangibly embodied on a computer readable medium. See MPEP 2106.

Claim Rejections - 35 USC § 112

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
7. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 recites "the cookie" which lacks antecedent basis. Correction is required.

Claim Rejections - 35 USC § 102

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-14, and 18-20, 22, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Taylor et al. (USPN 6,728,885).

9. Referring to claim 1, Taylor discloses a method comprising differentiating at least one service class in a kernel to perform service differentiation based on content in at least one data packet, including the steps of:

capturing at least one data packet until a complete application header is detected (an inherent feature of capturing a packet at a NIC as disclosed in Taylor is that an application header is also captured) (col. 5, lines 30-32);

parsing said complete application header to determine at least one application tag (i.e. attribute information such as source and destination address which are contained in the application header) (col. 6, line 15-17);

matching said at least one application tag to at least one matching rule (col. 6, lines 32-37);

determining a presence of at least one match with said at least one matching rule (i.e. checking the relevant information on the SYN packet sent by DPF 207) (col. 6, lines 32-37; col. 10, line 57 to col. 11, line 10); and

performing service differentiation (i.e. discarding packet if determined not to allow connection or creating a new connection and applying the corresponding rule to any subsequent packets from that connection until the connection s disconnected) (col. 6, lines 61-65).

10. Referring to claim 2, Taylor discloses the application tag includes a request method (i.e. filter to all "telnet" packets) (col. 6, lines 28-30).

11. Referring to claim 3, it is an inherent feature in HTTP that the URI is the second string in the HTTP header, (the first string is the action word, such as GET POST HEAD SYN, etc.).

12. Referring to claim 4, Taylor discloses employing a table having at least one matching rule (col. 6, lines 53-57).

13. Referring to claim 5, Taylor discloses finding a best match (i.e. a rule which best fits the packet, such as the type of protocol used) (col. 6, lines 25-43).

14. Referring to claim 6, Taylor discloses service differentiation includes dropping (i.e. discarding a packet) (col. 6, lines 61-65).

15. Referring to claim 7, Taylor discloses dropping includes discarding a connection (i.e. do not allow a connection) (col. 6, lines 61-65).

16. Referring to claim 8, Taylor discloses said action includes protocol control (i.e. setting up a new connection (col. 6, lines 61-65).

17. Referring to claim 9, Taylor discloses installing at least one matching rule (col. 6, lines 44-57).

18. Referring to claims 10 and 11, Taylor discloses detecting establishment of a new TCP connection (col. 6, line 60 to col. 7, line 10).

19. Referring to claim 12, Taylor discloses the step of establishing a new TCP connection includes receiving a SYN packet, sending a SYN-ACK packet, deferring accept, receiving ACK for SYN-ACK and deferring notification of data packet (this is an

Art Unit: 2143

inherent feature of the HTTP basic 3-way handshake for Connection synchronization which can be found in the Transmission Control Protocol DARPA Internet program Protocol Specification September 1981 prepared by Information Sciences Institute, USC, page. 31 Figure 7) (col. 5, lines 55-60).

20. Referring to claim 13, detecting application header delimiters for said data packet is an inherent feature of Taylor since without this detection step, the system would not know where the header starts and ends.

21. Claims 14, and 18-20, 22, and 23 are rejected for similar reasons as stated above.

Response to Arguments

22. Applicant's arguments filed July 21, 2005 have been fully considered but they are not persuasive.

23. Applicant argues, in substance, that (1) Taylor is directed to providing multilevel security and does not address providing multiple levels of service, (2) Taylor does not disclose HTTP type headers or tags in application protocols, (3) Taylor does not deal with URI's and cookies.

Art Unit: 2143

24. As to point (1) Applicant is advised that broad interpretation is given to the term “service differentiation”. Applicant has not argued any further defining embodiments of the term, nor does not apply any art to cite as to how this term is to be used in the claim. Therefore Applicant intends broad interpretation of the claim and the Office has interpreted as such. Applicant should understand that multiple levels of security as disclosed in Taylor *is* service differentiation, since differing levels of service are provided for each level of security (i.e. dropping packets but not others). By this rationale, the rejection is maintained.

25. As to point (2) Applicant is advised that the reference does disclose HTTP type headers or tags in application protocols. Applicant is advised that SYN is an application tag in an HTTP header. Applicant is advised to learn the features of HTTP/1.1 in order to understand this feature. Furthermore Applicant’s attention is requested to col. 10, line 56 to col. 11, line 30 which discloses a plurality of tags in either an application protocol or a communication protocol. Furthermore telnet and FTP are communication protocols.

26. As to point (3) Taylor inherently discloses (as stated above in ¶ 9) that in HTTP, the URI is the second string. Also an inherent feature in HTTP is that a cookie starts with a cookie delimiter. Applicant is advised to learn the features of HTTP in order to understand this feature.

Conclusion

27. Applicant has had numerous opportunities to amend the claimed subject matter, and has failed to modify the claim language to distinguish over the prior art of record by clarifying or substantially narrowing the claim language. Thus, Applicant apparently intends that a broad interpretation be given to the claims and the Examiner has adopted such in the present and previous Office action rejections. See *In re Prater and Wei*, 162 USPQ 541 (CCPA 1969), and MPEP 2111.

28. Again, it is the Examiner's position that Applicant has not yet submitted claims drawn to limitations, which define the operation and apparatus of Applicant's disclosed invention in manner, which distinguishes over the prior art. As it is Applicant's right to continue to claim as broadly as possible their invention. It is also the Examiner's right to continue to interpret the claim language as broadly as possible. It is the Examiner's position that the detailed functionality that allows for Applicant's invention to overcome the prior art used in the rejection, fails to differentiate in detail how these features are unique. As it is extremely well known in the networking art as already shown by Taylor and other prior arts of records disclosed. Thus, *it is clear that Applicant must submit amendments to the claims* in order to distinguish over the prior art use in the rejection that discloses different features of Applicant's claim invention.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JEA
August, 1, 2005



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